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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,170

06/09/2006

Chung-Dam Song

240-37

5274

24336 7590 02/02/2010
TUTUNJIAN + BITETTO, P.C.
20 CROSSWAYS PARK NORTH
SUITE 210
WOODBURY, NY 11797

EXAMINER

FAULK, DEVONA E

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

02/02/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,170	Applicant(s) SONG ET AL.	
	Examiner DEVONA E. FAULK	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6 and 10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,6 and 10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

1. The applicant has cancelled the language from claim 1 that led the examiner to assert a 112 rejection in the previous action.

Applicant's arguments filed 11/13/09 have been fully considered but they are not persuasive. The applicant asserts that the □ configuration is a structural element which must be accounted for. The examiner disagrees and asserts that the applicant has not provided any significance to that configuration in the specification and therefore it is a design choice. Furthermore the applicant teaches of another configuration as an option.

2. Applicant's arguments, filed 11/13/09, with respect to the prior art Ikeda have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Fuller (US 2,610,252).

3. Claims 2-4,7,8,11-14,15-20 are withdrawn from consideration.

4. Claims 5 and 9 are cancelled.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

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Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda (US 6,978,029) in view of Fuller (US 2,610,252).

Regarding claim 1, Ikeda discloses a condenser microphone employing a wideband stop filter for wideband signals of low frequency and radio frequency (column 6, lines 12-28; abstract; column) , the condenser microphone having improved resistance to electrostatic discharge applied from outside and preventing radio frequency interference to decrease noise (abstract; column 6, lines 12-28), the condenser microphone comprising:

an acoustic module for converting sound pressure into an electric signal (capacitor comprised of elements 14 and 17 , Figure 3);

an amplification means for amplifying the electric signal input from the acoustic module (amplifier 34, Figure 3);

and an EM-noise-filtering/ESD-blocking section for blocking a wideband signal having low frequency and radio frequency output from the amplification means, blocking introduced electromagnetic waves, radio wave noise, and electrostatic discharge, the EM-noise-filtering/ESD-blocking section including one or combination of a resistor and a capacitor disposed between an input port of the amplification means and the acoustic module and/or between an output port of the amplification means and a ground, the resistor and the capacitor being connected in parallel or in series to each other (capacitor 21 and resistor 24 of Figure 3 form the EM-noise filtering/ESD blocking

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section; column 5, line 52-column 6, line 28; FET 19 reads on amplification means, Figure 3) the capacitor and resistor implicitly provide protection against electrostatic discharge, EM waves and radio wave noise).

Ikeda discloses wherein the EM-noise-filtering/ESD-blocking section comprises: a first capacitor connected in parallel between an output port of the amplification means and a ground port to function as a filter (capacitor 21, Figure 3; column 5, line 52-column 6, line 28) and a first resistor connected serially between an output port of the first capacitor and an output port of the second capacitor to perform a decoupling function (resistor 24, Figure 3; column 5, line 52-column 6, line 28). Figure 4 of Ikeda discloses a second capacitor connected parallel to the first capacitor to perform an EM-noise-filtering and ESD-blocking function (capacitor 26, Figure 4). Figure 3 of Ikeda fails to disclose that the EM-noise-filtering/ESD-blocking section has a shape of a character `II` and of a second capacitor connected parallel to the first capacitor to perform an EM-noise-filtering and ESD-blocking function .

Ikeda fails to disclose a second bypass capacitor connected parallel to the first bypass capacitor to perform an EM-noise-filtering and ESD-blocking function; and a first decoupling resistor connected serially between an output port of the first bypass capacitor and an output port of the second bypass capacitor to perform a decoupling function, so that the EM-noise-filtering/ESD-blocking section has a shape of a character Π .

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The concept of a decoupling resistor connected serially between an output port of one capacitor and an output port of a second capacitor is well known in the art as taught by Fuller (See Figure 3, elements 63,64 and 65). It would have been obvious to try to have a decoupling resistor connected as noted above with a reasonable expectation of success.

The examiner further notes asserts that the applicant has provided no significance for the shape of the EM-noise-filtering and ESD-blocking section.

Regarding claim 6, Ikeda discloses wherein: the first capacitor has a capacitance of 10 pF or 33 pF (capacitor 21 is 33 pF; column 6, lines 17-20) ; the second capacitor has a capacitance (Figure 4 teaches of including a second capacitor); and the first resistor has a resistance selected from the group consisting of 100 Ω ., 220 Ω , 330 Ω , 430 Ω , 620 Ω , 680 Ω , 820 Ω and 1K Ω (resistor 24 has a resistance of 100 Ω ; column 6, lines 17-20)

Ikeda fails to disclose that the second capacitor has a capacitance selected from the group consisting of 1 nF, 1.5 nF, 2.2 nF, 3.3 nF, 4.7 nF, 6.8 nF, 10 nF, 15 nF, 22 nF, 33 nF, 47 nF, 68 nF and 100 nF. The examiner asserts that capacitance is a matter of design choice. It would have been obvious to modify Ikeda so that the capacitance of the second capacitor is one of the group above for the benefit of meeting a design specification.

Regarding claim 10, Ikeda fails to disclose a noise-blocking resistor between the acoustic module and the input port of the amplification means. The examiner takes official notice that adding resistors to circuits to help block electromagnetic waves is well

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known in the art. It would have been obvious to add a noise-blocking resistor between the acoustic module and the input port of the amplification means for the benefit of providing better protection. Regarding the value of the resistance, the examiner asserts that is a matter of design choice. It would have been obvious to have the resistance of the noise-blocking resistor be from the group of 100 Ω , 1K Ω , 10 K Ω , 100K Ω and 1M Ω for the benefit of meeting a design specification.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEVONA E. FAULK whose telephone number is (571)272-7515. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Devona E. Faulk/
Primary Examiner, Art Unit 2614